

According to REACH Regulations (EC) 1907/2006 and (EU) 2020/878

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product code : GS4658
 Product name : Dimethylformamide, GlenDry™, anhydrous over molecular sieve
 CAS number : 68-12-2
 EINECS : 200-679-5
 Physical form : liquid, substance
 REACH : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

1.2 Relevant identified uses of the substance or mixture and uses advised against

PC21: Laboratory chemicals.

1.3 Details of the supplier of the safety data sheet

| | | | |
|--------------|------------------------------|-----------|--|
| Company name | : Glentham Life Sciences Ltd | Telephone | : +44 (0) 1225 667 798 |
| | Unit 5 Leafield Way | Fax | : +44 (0) 2033 978 909 |
| | Corsham SN13 9SW | Email | : info@glentham.com |
| | United Kingdom | Web | : www.glentham.com |

1.4 Emergency telephone number

Emergency telephone : NHS Direct 111 (UK, 24 hours), 112 (EU, 24 Hours), +44 (0) 1225 667 798 (09.00 – 17.00 GMT) number

2. Hazards identification

2.1 Classification of the substance or mixture

Classification under CLP according to (EC) 1272/2008

| | |
|------|--------------|
| H226 | Flam. Liq. 3 |
| H302 | Acute Tox. 4 |
| H319 | Eye Irr. 2A |
| H332 | Acute Tox. 4 |
| H360 | Repr. 1B |

2.2 Label elements

Label elements under CLP according to (EC) 1272/2008

Pictograms



GHS02 GHS07 GHS08

Signal words

Danger

Hazard statements

| | |
|------|--|
| H226 | Flammable liquid and vapour |
| H302 | Harmful if swallowed |
| H319 | Causes serious eye irritation |
| H332 | Harmful if inhaled |
| H360 | May damage fertility or the unborn child |

Precautionary statements

| | |
|----------------|--|
| P201 | Obtain special instructions before use. |
| P260 | Do not breathe dust/fume/gas/mist/vapors/spray. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P301+P312 | IF SWALLOWED: call a POISON CENTER/doctor/... IF you feel unwell. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. |
| P308+P313 | IF exposed or concerned: Get medical advice/attention. |
| P261 | Avoid breathing vapors. |

P241 Use explosion-proof electrical equipment.
P264 Do not breathe fume.

2.3 Other hazards

PBT

This substance is not identified as a PBT substance.

3.0 Composition/information on ingredients

3.1 Substances

| Name | Identifier | % | Classification |
|---|--|-------|---|
| Dimethylformamide, GlenDry™, anhydrous over molecular sieve | CAS: 68-12-2 EC: 200-679-5 REACH: Not applicable | 99.9% | H226, Flam. Liq. 3 H302, Acute Tox. 4 H319, Eye Irr. 2A H332, Acute Tox. 4 H360, Repr. 1B |

4. First aid measures

4.1 Description of first aid measures

| | |
|--------------|--|
| Skin contact | Consult a doctor. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water. |
| Eye contact | Consult a doctor. Bathe the eye with running water for 15 minutes. |
| Ingestion | Consult a doctor. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Wash out mouth with water. |
| Inhalation | Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor. |

4.2 Most important symptoms and effects, both acute and delayed

| | |
|-----------------------------|--|
| Skin contact | There may be irritation and redness at the site of contact. There may be mild irritation at the site of contact. |
| Eye contact | The eyes may water profusely. There may be irritation and redness. |
| Ingestion | Nausea and stomach pain may occur. There may be irritation of the throat. There may be soreness and redness of the mouth and throat. There may be vomiting. |
| Inhalation | Exposure may cause coughing or wheezing. Nausea and stomach pain may occur. There may be irritation of the throat with a feeling of tightness in the chest. There may be vomiting. |
| Delayed / immediate effects | Delayed effects can be expected after long-term exposure. Immediate effects can be expected after short-term exposure. Nausea and stomach pain may occur. |

4.3 Indication of any immediate medical attention and special treatment needed

Immediate / special treatment

Do not induce vomiting. Eye bathing equipment should be available on the premises.

5. Fire-fighting measures

5.1 Extinguishing media

Alcohol resistant foam. Carbon dioxide. Dry chemical powder. Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers. Water spray.

5.2 Special hazards arising from the substance or mixture

Exposure hazards

Highly flammable. In combustion emits toxic fumes. May form flammable / explosive dust-air mixture.

5.3 Advice for fire-fighters

Wear protective clothing to prevent contact with skin and eyes. Wear self-contained breathing apparatus.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions

Do not create dust. Eliminate all sources of ignition. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Notify the police and fire brigade immediately. Refer to section 8 of SDS for personal protection details.

6.2 Environmental precautions

Do not discharge into drains or rivers.

6.3 Methods and material for containment and cleaning up

Clean-up procedures

Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Do not use equipment in clean-up procedure which may produce sparks.

6.4 Reference to other sections

Refer to section 8 of SDS.

7. Handling and storage

7.1 Precautions for safe handling

Handling requirements

Avoid direct contact with the substance. Avoid the formation or spread of dust in the air. Do not handle in a confined space. Smoking is forbidden. Use non-sparking tools. Ensure there is sufficient ventilation of the area.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Avoid contact with water or humidity. Ensure lighting and electrical equipment are not a source of ignition. Keep away from sources of ignition. Keep container tightly closed. Prevent the build up of electrostatic charge in the immediate area. Store in cool, well ventilated area.

7.3 Specific end use(s)

No data available.

8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits

| Substance (CAS) | Control Parameter | Value | Notes | Source |
|------------------------------------|---|-------|-------|------------------|
| N,N-Dimethylformamide (68-12-2) | Long-term Exposure Limit (ppm) | 5 | Sk | UK HSE EH40/2005 |
| | Long-term Exposure Limit (mg m ⁻³) | 15 | | |
| | Short-term Exposure Limit (ppm) | 10 | | |
| | Short-term Exposure Limit (mg m ⁻³) | 30 | | |
| | Long-term Exposure Limit (ppm) | 15 | skin | 2009/161/EU |
| | Long-term Exposure Limit (mg m ⁻³) | 5 | | |
| | Short-term Exposure Limit (ppm) | 30 | | |
| | Short-term Exposure Limit (mg m ⁻³) | 10 | | |

| | | | | |
|------------------------------------|---|----|------|------------------|
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| | Short-term Exposure Limit (ppm) | 10 | | |
| | Short-term Exposure Limit (mg m ⁻³) | 30 | | |
| | Long-term Exposure Limit (ppm) | 15 | skin | 2009/161/EU |
| | Long-term Exposure Limit (mg m ⁻³) | 5 | | |
| | Short-term Exposure Limit (ppm) | 30 | | |
| | Short-term Exposure Limit (mg m ⁻³) | 10 | | |

8.2 Exposure controls

| | |
|------------------------|---|
| Engineering measures | Ensure lighting and electrical equipment are not a source of ignition. Ensure there is sufficient ventilation of the area. |
| Respiratory protection | Respiratory protective device with particle filter. Self- contained breathing apparatus must be available in case of emergency. |
| Hand protection | Protective gloves. |
| Eye protection | Ensure eye bath is to hand. Safety glasses. |
| Skin protection | Protective clothing. |

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|-----------------------------|
| Physical state | Liquid |
| Colour | Colourless |
| Odour | No data available. |
| Melting point/Freezing point | -61 °C |
| Boiling point/initial boiling point/boiling range | 153 °C @ Press: 760 Torr |
| Flammability | Flammable liquid and vapour |
| Lower/Upper explosion limit | No data available. |
| Flash Point | No data available. |
| Auto-ignition temperature | No data available. |
| Decomposition temperature | No data available. |
| pH | No data available. |
| Kinematic viscosity | No data available. |
| Solubility | No data available. |
| Partition coefficient n-octanol/water | No data available. |
| Vapour pressure | No data available. |
| Density/relative density | 0.945 |
| Relative vapour pressure | No data available. |
| Particle characteristics | No data available. |

9.2 Other information

No data available.

10. Stability and reactivity

10.1 Reactivity

Stable under recommended transport or storage conditions.

10.2 Chemical stability

Stable at room temperature. Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions

Decomposition may occur on exposure to conditions or materials listed below. Hazardous reactions will not occur under normal transport or storage conditions.

10.4 Conditions to avoid

Flames. Hot surfaces. Sources of ignition. Heat.

10.5 Incompatible materials

Materials to avoid

Carbon dioxide. Strong acids. Strong oxidising agents.

11. Toxicological information

11.1 Information on toxicological effects

a) Acute toxicity

N,N-Dimethylformamide

LD50 Mouse (IP): 1120 mg/kg

LD50 Mouse (Oral): 6.8 mL/kg

N,N Dimethylformamide

LD50 Mouse (IP): 1120 mg/kg

LD50 Mouse (Oral): 6.8 mL/kg

b) Skin corrosion/irritation

No data available.

c) Serious eye damage/irritation

Serious eye damage/eye irritation (Category 2A)

d) Respiratory or skin sensitisation

No data available.

e) Germ cell mutagenicity

No data available.

f) Carcinogenicity

No data available.

g) Reproductive toxicity

Reproductive toxicity (Category 1B)

h) STOT-single exposure

No data available.

i) STOT-repeated exposure

No data available.

j) Aspiration hazard

No data available.

11.2 Symptoms / routes of exposure

| | |
|-----------------------------|--|
| Skin contact | There may be irritation and redness at the site of contact. There may be mild irritation at the site of contact. |
| Eye contact | The eyes may water profusely. There may be irritation and redness. |
| Ingestion | Nausea and stomach pain may occur. There may be irritation of the throat. There may be soreness and redness of the mouth and throat. There may be vomiting. |
| Inhalation | Exposure may cause coughing or wheezing. Nausea and stomach pain may occur. There may be irritation of the throat with a feeling of tightness in the chest. There may be vomiting. |
| Delayed / immediate effects | Delayed effects can be expected after long-term exposure. Immediate effects can be expected after short-term exposure. Nausea and stomach pain may occur. |
| Other information | No data available. |

12. Ecological information

12.1 Toxicity

No data available.

12.2 Persistence and degradability

Biodegradable.

12.3 Bioaccumulative potential

No bioaccumulation potential.

12.4 Mobility in soil

Readily absorbed into soil.

12.5 Results of PBT and vPvB assessment

This substance is not identified as a PBT substance.

12.6 Endocrine disrupting properties

This substance is not identified as having endocrine disrupting properties

12.7 Other adverse effects

No data available.

13. Disposal considerations

13.1 Waste treatment methods






Disposal operations

Transfer to a suitable container and arrange for collection by specialised disposal company.

NB

The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

14. Transport information

| ADR | IMDG | IATA | ADN | RID |
|---|---|---|--|---|
| 14.1. UN number | | | | |
| UN2265 | UN2265 | UN2265 | UN2265 | UN2265 |
| 14.2. UN proper shipping name | | | | |
| N,N-DIMETHYLFORMAMIDE | N,N-DIMETHYLFORMAMIDE | N,N-Dimethylformamide | N,N-DIMETHYLFORMAMIDE | N,N-DIMETHYLFORMAMIDE |
| Transport document description | | | | |
| UN2265 N,N-DIMETHYLFORMAMIDE, 3, III | UN2265 N,N-DIMETHYLFORMAMIDE, 3, III | UN2265 N,N-Dimethylformamide, 3, III | UN2265 N,N-DIMETHYLFORMAMIDE, 3, III | UN2265 N,N-DIMETHYLFORMAMIDE, 3, III |
| 14.3. Transport hazard class(es) | | | | |
| 3 | 3 | 3 | 3 | 3 |
|  |  |  |  |  |
| 14.4. Packing group | | | | |
| III | III | III | III | III |
| 14.5. Environmental hazards | | | | |
| No | No | No | No | No |

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This Safety Data Sheet is prepared in accordance with Commission Regulation (EC) 1907/2006, amended by Commission Regulation (EU) 2020/787.

Authorisations/Restrictions

Regulation (EC) 1907/2006, REACH, Annex XIV list of substances subject to authorisation: No data available.

Regulation (EC) 1907/2006, REACH, Annex XVII restrictions on the manufacture, placing on the market and use of certain dangerous substances: 30 Nov 2021, Entry No.: 76

Regulation (EC) 1005/2009 on substances that deplete the ozone layer: No data available.

Regulation (EC) 850/2004 on persistent organic pollutants, amended by (EU) No 2019/1021: No data available.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

16. Other information

H-Statement Full Texts

| | |
|------|--|
| H226 | Flammable liquid and vapour |
| H302 | Harmful if swallowed |
| H319 | Causes serious eye irritation |
| H332 | Harmful if inhaled |
| H360 | May damage fertility or the unborn child |

Abbreviations Full Texts

| | |
|-----------|---|
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ALARP | As low as is reasonably practicable |
| CAS | Chemical Abstracts Service |
| CLP | Classification, Labelling and Packaging Regulations |
| COSHH | Control of Substances Hazardous to Health |
| EC Number | European Community Number |
| EC50 | Effective Concentration 50% |
| EILINCS | European List of Notified Chemical Substances |
| EINECS | European Inventory of Existing Commercial Chemical Substances |
| GHS | Globally Harmonised System |
| HSE | Health & Safety Executive UK |
| IATA | International Air Transport Association |
| IM | Intramuscular |
| IMDG | The International Maritime Dangerous Goods Code |
| IP | Intraperitoneal |
| IV | Intravascular |
| LD50 | Lethal Dose 50% |
| LOEC | Lowest Observable Effective Concentration |
| LTEL | Long Term Exposure Limit |
| NOEC | No Observable Effective Concentration |
| OECD | Organisation for Economic Cooperations and Development |
| PBT | Persistent Bioaccumulative Toxic |
| PPE | Personal Protective Equipment |
| REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals |
| RID | Regulations Concerning the International Carriage of Dangerous Goods by Rail |
| SC | Subcutaneous |
| SDS | Safety Data Sheet |
| STEL | Short Term Exposure Limit |
| VOC | Volatile Organic Compounds |
| vPvB | Very Persistent and Very Bioaccumulative |
| WEL | Workplace Exposure Limits |

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Disclaimer: Glentham Life Sciences shall not be held liable for any damage resulting from handling or from contact with the above product. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This document does not guarantee the properties or quality of the product.